Protocol
For
Incidental Take Authorization

Wood Turtle *(Clemmys insculpta)*

Note

If carrying out a given protocol is not feasible, or multiple listed species in a given management area pose conflicts, contact the Bureau of Endangered Resources at 608/264-6057. Staff in BER will work with Integrated Science Services (Research) staff, species experts and managers to establish an acceptable protocol for a given site that will allow for incidental take without further legal Consultation or public notice

I. Species Background Information

A. Status

State Status: Threatened.

USFWS Region 3 Species of Management Concern: No

Number of Known WI Sites: 139, north of a line that runs approximately from Green Bay to the southwest corner of Crawford County.

Global Range: Nova Scotia, south to northern Virginia and west into eastern Minnesota and northeastern Iowa.

B. Habitat

General Habitat Description: Prefers clear or tannin-stained moderate to fast flowing warm and cold water streams and rivers excluding the Mississippi and lower Wisconsin Rivers. Sand and gravel/cobble substrates are preferred over mud, silt or clay bottoms. This species is highly terrestrial, spending days to months away from water in late spring and summer in lowland hardwood forests, some upland forests and in a variety of wetland habitats adjacent to riverine corridors. (See "Nest Location" below.)

Over-wintering Habitat: In smaller streams wood turtles prefer to hibernate by climbing into the exposed roots in bank undercuts or in deeper pools. In larger rivers they may lie on the substrate in fast running stretches where ice encroachment will not be a problem. They may remain somewhat active underwater after ice-up.

C. Life History

Home Range: Home range varies considerably among individuals and age classes. Young turtles may use only a small portion of the stream or river shoreline habitat whereas gravid females are known to travel along riverine corridors as far as 10 miles to reach a communal nesting site. Home range in upland habitat varies significantly between populations.

Communal Behaviors: Wood turtles are communal nesters, with females congregating from several riverine miles if sandy nesting sites near rivers are scarce. In rivers where nesting sites are abundant they will be less congregated. Colonial nesting behavior often results in extremely high nest predation with medium-sized mammal populations being high. Other species of turtles often nest with woodies and nesting evidence is easily found by looking for predated nests (white eggshells present above the ground surface). Distinguishing between species by examining eggshells is not an accurate method for making species determinations.

Site Fidelity: Females tend to return to the same nesting sites annually as long as the sites remain suitable (open canopy). However, some individuals appear to be random nesters, and are known to exploit newly disturbed sandy soils adjacent to occupied rivers and streams rather quickly.

Nest Location: Wood turtle tend to nest close to the river (i.e. south exposed sandy river banks) but may occasionally cross land to access disturbed soils or loose sand (i.e. sand roads adjacent to streams, gravel pits near rivers). Nesting usually occurs at an elevation of 4 or more feet above normal river stage. Light to moderately sloughing southerly exposed sandy banks with scattered vegetation are preferred. Wood turtles typically do not nest on steep and continuously sloughing sand banks where vegetation cannot become established.

Breeding: Wood turtles are capable of breeding in most months but primarily do so in fall or spring. Females produce single clutches annually.

Nesting Period: Nesting can occur in both the early morning and evening, but evenings are preferred. Nesting may take several hours and extend well past dark. The peak nesting period runs from early to late June but may occur into early July. Eggs generally hatch in 55-75 days in WI (early August through mid September). This species has not been documented to overwinter in the nest.

Activity Periods:

Seasonal: Wood turtles become active as soon as temperatures reach about 50° F with sunny skies in early spring. They often bask along shorelines in mid-late March in the southern part of Wisconsin and into April farther north. Males and females spend considerable time basking on land but usually stay close to water until temperatures moderate in mid-late spring. They then may become primarily terrestrial for days to months, foraging long distances from water (>.0.5 miles). During the heat of summer, wood turtles are difficult to locate either due to aestivation or because they are so dispersed. Most specimens do not spend much time in water during the warmest months of summer. They begin heading for overwintering sites during September and hibernate beginning in October. Individuals have been documented breeding under ice in early winter.

Daily: Wood turtles usually become active shortly after daylight to begin foraging. In early spring this usually means leaving the water to forage on land. They then return to the water near sunset (especially in spring) or they may remain on land if night temperatures do not get too cold. During the summer they are most active in the morning.

II. Management Protocols For Authorizing Incidental Take

If the management activity is for the purpose of recovering, maintaining or improving the grassland, prairie or savanna ecosystem that includes habitat for wood turtles, then incidental take is allowed if these conditions are followed.

If incidental take of wood turtles results from the activity, please notify BER so we can reevaluate this guidance.

A. Burning:

1. If burning between October 15 and March 15, there are no restrictions on the activity.

2. If burning between March 15 and October 15 and temperatures are less than 50°F, or skies are overcast, then there are no restrictions on the activity.

3. If burning between March 15 and October 15, and temperatures are at or above 50°F and skies are sunny to partly cloudy, then areas involving the shorelines of occupied rivers and streams should be surveyed* immediately prior to burning to locate and move ("rescue") specimens (place in the water).

   ** Surveys involve a walk along the shoreline of the burn unit searching for turtles basking in the vegetation within a border extending approximately 50 feet inland from the existing surface water area. Survey for wood turtles by walking parallel to the shoreline with several people spaced between the bank and*

approximately 50 feet inland. Contact BER if these "rescue surveys" are not practicable.

B. Mowing/Haying:

Avoid mowing on known nesting sites during the periods of May 20 - July 5 and August 5 - September 30.

C. Selective Brush/tree-cutting:

Selective cutting (i.e. chain saw) may occur without restrictions.

D. Grazing:

Due to the communal nesting behavior of wood turtles, grazing is not advised on known nesting sites due to potential nest destruction by livestock.

E. Herbiciding:

In areas where wood turtles are suspected or known to nest, herbiciding should be conducted as follows:

Spot treat herbaceous vegetation, preferably with a low persistence/short half-life herbicide (i.e. Round-up©), and apply by wick, sponge or hand-held spray application, not broadcast applications.

Use basal bark or cut-stump-treatment methods when controlling woody vegetation.

This survey protocol is not required if management protocols are followed. However, they are recommended for the purpose of identifying essential nesting sites.

Nesting sites are located by searching for white egg shell fragments on the surface of sparsely vegetated southerly exposed sandy stream banks. Wood turtles usually nest at least 4' above normal water levels or in openings, fields or along sandy roads adjacent to occupied rivers and streams. If wood turtles are known from the riverine habitat, it is probably safest to consider that any egg fragments are from wood turtles since distinguishing turtle species from eggs shell fragments is difficult.